

CHAPTER 11

SAFETY AND HEALTH TRAINING

INTRODUCTION

Can your employees explain every existing and potential hazard to which they are exposed? Do they know how to protect themselves and their co-workers from these hazards? Can they tell you precisely what they must do in the event of a fire or other emergency?

Training can help your employees develop the knowledge and skills they need to understand workplace hazards and protect themselves. Safety and health training is vital to every workplace. This is the fourth major element in OSHA's Safety and Health Program Management Guidelines.

Safety and Health education is most effective when integrated into your company's overall training in performance requirements and job practices. It can range from the simple precautionary warnings given new workers when they are first shown the job to more elaborate, formalized instruction.

How effective is your company's training for safety and health? This chapter will help in designing (or revising), implementing and evaluating the worker safety and health training that you provide. It also will give information on OSHA requirements for training and will tell you where to find further OSHA references and other assistance.

DESIGN

First Things First: Commitment and Involvement

Before training begins be sure that your company policy clearly states the company's commitment to health and safety and to the training program. This commitment must include paid work time for training and training in the language that the worker understands. Involve both management and employees in developing this program.

You will want your training program to focus on health and safety concerns that are most appropriately addressed by training. Are there other, preferred protection methods, for example, engineering controls or personal protective equipment? As discussed in Chapter 8, it is important to determine the best way to deal with a particular hazard. Once you have decided that a safety or health problem can best be addressed by training (or by another method combined with training), be sure to follow up by developing specific training goals based on your particular needs.

TEACHING AND LEARNING PRINCIPLES

Training your supervisors and employees need not be complex or lengthy. In most small businesses that have extensive training needs more formalized training may be necessary. In either case, five basic principles should guide your training program:

- **Perceived Purpose:** The trainee must understand the purpose of the instruction. Therefore, the beginning of any training program should focus on why this instruction will be useful.
- **Order of Presentation:** Information should be organized to maximize understanding. For example, if you are teaching employees the proper way to use a respirator, the order in which you present the material should match the steps the employee must use to choose, fit, wear and maintain the respirator.
- **Appropriate Practice:** We learn best when we can immediately practice and apply newly acquired knowledge and skills. Therefore, job safety and health instruction is best given at the worksite where demonstration, practice and application can be immediate. When onsite instruction is not feasible, arrange for your employees to practice and apply the new

knowledge and skills as soon as possible.

- Individual Differences: We are individuals, and we learn in different ways. A successful training program incorporates a variety of learning opportunities such as written instruction, audio-visual instruction, lectures and hands-on coaching. Also, we learn at different speeds. The pace of the training should recognize these differences. One effective way to learn is by teaching others. Therefore, after the initial instruction and some practice, it can be very helpful to divide the group into teacher/learner teams, sometimes pairing a rapid learner with a slower one, but also giving the slower learner a chance to teach.

IDENTIFYING TRAINING NEEDS

New employees need to be trained not only to do the job but to recognize, understand and avoid potential hazards to themselves and others in their immediate work area and elsewhere in the workplace. Contract workers also may need training to recognize your work place's hazards or potential hazards. Experienced workers will need training if the installation of new equipment changes their job in any way or if process changes result in new hazards or increases in previously existing hazards. All workers may need refresher training to keep them prepared for emergencies and alert them to ongoing housekeeping problems.

Workers needing to wear personal protective equipment (PPE) and persons working with high risk situations will need special training. In this latter category are workers who risk occupational exposure to blood or other potentially infectious materials. These workers, who risk exposure to the viruses that cause AIDS and hepatitis B, must be provided training and other protective measures under OSHA's Bloodborne Pathogens standard (Part 1910.1030 of Title 29 of the Code of Federal Regulations). For more information, you should consult the standard. An overview of the standard's requirements and of method for reducing the risk of exposure can be found in OSHA Publication 3127, "Occupational Exposure to Bloodborne Pathogens."

Specific hazards that employees need to know about should be identified through total site health and safety surveys, job hazard analysis and change analysis. Company accident and injury records may reveal additional hazards and needs for training. Near miss reports, maintenance requests and employee suggestions may uncover still other hazards requiring employee training. For further information, see Chapters 3 and 9.

As you initiate or revise your safety and health program, you will probably employ some controls that require the cooperation of your workers and training to help instill this cooperation. Examples include employees' wearing PPE properly or carrying out certain tasks with special precautions. For further information on hazard prevention and control, see Chapter 8.

DEVELOPING LEARNING ACTIVITIES

Develop your learning activities to meet the training need you have identified. Keep in mind the five learning principles described above. Be imaginative in your choice of methods and materials and make full use of you resources. One way to get ideas is by looking at the training programs of companies in your industry. Another is to consult such organizations as the National Safety Council, the American Society of Safety Engineers, THE Wisconsin Council of Safety, the American Industrial Hygiene Association, the Bureau of Labor Statistics, the Wisconsin Safety Consultation Program, and the OSHA Office of Training and Education.

SOME COMMON TYPES OF SPECIALIZED TRAINING

Safety and Health Training for Managers. A good safety and health program is impossible without support and understanding from the top. Training managers in their responsibilities is necessary

to ensure their continuing support and understanding. Formal classroom training may not be necessary. The subject can be covered periodically as a part of regular management meetings. Managers need to understand the importance of the safety and health program. It is their responsibility to communicate the program's goal and objectives to their employees. Their role also includes making clear assignments of safety and health responsibilities, providing authority and resources to carry out assigned tasks, and holding subordinate managers and supervisors accountable.

Training should emphasize the importance of managers' visibly showing their support for the safety and health program. And, of course, they should be expected to set a good example for safety by scrupulously following all the safety and health rules. They also should actively encourage employee involvement in safety and health problem identification and resolution. For further information on management roles, see Chapter 4.

These topics can be covered and illustrated with examples in the relatively short time. They should be repeated at least annually.

Safety and Health Training for Supervisors. All employees should be involved in matters of safety and health. However, workers often are promoted to supervisory positions without adequate knowledge of how to train other employees in the safe and proper way to do the job. It is not unusual for them to lack full knowledge of the company's policies and procedures. They may need additional training in hazard detection and control, accident investigation, their role in ensuring the maintenance of physical protections, emergency handling, and, in general, how to supervise.

Since supervisors do a lot of on-the-job-training, they also will need to be taught how to train and how to reinforce training. They may need help in learning how to apply fair and consistent discipline. Such training can be provided by the supervisor's immediate manager, by the Safety Department or by outside resources.

Job Orientation. The format and extent of orientation training will depend on the complexity of hazards and the work practices needed to control them. For many small businesses job orientation may consist of a quick review of site safety and health rules, hazard communication training for the toxic substances present at the site, and a run-through of the job tasks. This training usually is presented by the personnel officer and/or the new employee's supervisor.

For larger workplaces with more complex hazards and work practices to control them, orientation should be structured carefully. You want to make sure that new employees start the job with a clear understanding of the hazards and how to protect themselves and others. Employers frequently provide a combination of classroom and on-the-job training. Many have found it useful to have fellow employees trained to provide peer training. Others have followed up supervisory training with a buddy system: a worker with lengthy experience is assigned to watch over and coach a new worker, either for a set period of time or until it is determined that training is complete.

Vehicular Safety. Today over-the-road vehicle accidents are the leading cause of work-related deaths. Given the grim reality of this hazard, all workers operating a motor vehicle on the job should be trained in its safe operation. In 1990 OSHA proposed a standard requiring that such workers wear seat belts and receive safe driving training. Training in safe loading and unloading practices, safe speed in relation to varying conditions, and proper vehicle maintenance has been found helpful in reducing work related vehicle injuries. Various organizations such as the National Safety Council offer specialized training programs in defensive driving.

Don't overlook the training of on-premises vehicle drivers. These drivers can be exposed to such hazards as vehicle imbalance, loads tipping while the vehicle is cornering and dangers related to battery charging. We urge you to emphasize in the strongest possible terms the benefits of safe driving and the potentially fatal consequences of unsafe practices.

Personal Protective Equipment (PPE). Supervisors and workers alike must be taught the proper selection, use and maintenance of PPE. Since PPE sometimes can be cumbersome, employees may need to be motivated to wear it in every situation where protection is necessary. Therefore, training should begin with a clear explanation of why the equipment is necessary, how its use will benefit the wearer and what its limitations are. Remind your employees of your desire to protect them and of your efforts, not only to eliminate and reduce the hazards, but also to provide suitable PPE where needed. Explain how essential it is that they do their part to protect their health and safety.

Individual employees need to become familiar with the PPE they are being asked to wear. This is done by handling it and putting it on. Training consists of showing employees how to put the equipment on, how to wear it properly and how to test for proper fit. Proper fit is essential if the equipment is to provide the intended protection. It is especially important in the case of negative pressure respirators, so special fit testing is necessary.

The effectiveness of some PPE also depends on proper maintenance. Employees must be trained to maintain the equipment themselves or to see that others maintain it properly. Vendors of the equipment and manufacturers' instructions may be your best sources of maintenance information.

Does your company have employees who do not regularly use PPE, but who will be expected to use it during an emergency response? These employees also must be trained in PPE use, fit and maintenance. In your overall training program, include simulated emergency training exercises where employees use the equipment. Repeated and even frequent training is often necessary. For example, your emergency response plans may call for using self-contained respirators to escape from atmospheres immediately dangerous to life or health. You should conduct frequent exercises in finding, wearing and properly using these protective devices. If they ever are needed, you will want your employees capable of responding quickly and knowledgeably. Expect to repeat the PPE training for new hires, contract workers and employees in newly assigned jobs.

Emergency Response. Train your employees to respond to emergency situations. Every employee at every worksite needs to understand:

- Emergency telephone numbers and who may use them,
- Emergency exits and how they are marked,
- Evacuation routes, and
- Signals that alert employees of the need to evacuate.

In addition, practice evacuation drills at least annually, so that every employee has a chance to recognize the signal and evacuate in a safe and orderly fashion. Supervisors or their alternates should practice counting personnel at evacuation gathering points to ensure that every worker is accounted for.

Don't forget anyone at your site when you are practicing for emergencies. You should have procedures to account for visitors, contract employees and service workers such as cafeteria employees. One effective practice technique is secretly to have one or two employees simulate an injury or other immobilizing problem during an evacuation drill. They could, for instance, slip away to a stairwell not on the evacuation route and there, await discovery and rescue. Such an experience can demonstrate forcefully to your supervisors and alternates the importance of an accurate count.

Additional special instruction and drills may be necessary at sites where weather or other emergencies are reasonable possibilities. For example, where there is a good chance of tornadoes, employees should learn to distinguish the signals for evacuation and for taking shelter and should practice responses to both. For further information on planning for emergencies, see Chapter 8.

If you have established emergency response teams at your workplace, all members of these teams are covered by OSHA's Bloodborne Pathogens standard if they are assigned first aid or medical treatment responsibilities.

Periodic Safety and Health Training. At some worksites, complex work practices are necessary to control hazards. Elsewhere, occupational injuries and illness are common. At such sites, it is especially important that employees receive periodic safety and health training to refresh their memories and to teach new methods of control. New training also may be necessary when OSHA standards change or new standards are issued. It is important to keep these sessions interesting. Some companies have found it very effective to give employees the responsibility to plan and present periodic safety and health training. However, the success of this method depends upon employees being provided adequate training resources and support to develop their presentations.

Most general industry worksites use monthly safety meetings for this training. In construction and other high-hazard industries where the work situation changes rapidly, weekly meetings often are needed. These meetings serve to remind workers of the upcoming week's tasks, the environmental changes that may affect them and the procedures they may need to protect themselves and others.

What is called one-on-one training is possibly the most effective training method. The supervisor periodically spends some time watching an individual employee work. The supervisor meets with the employee to discuss safe work practices, bestow credit for safe work and provide additional instruction to counteract any observed unsafe practices. One-on-one training is most effective when applied to all employees under supervision and not just those with whom there appears to be a problem. This is because the positive feedback given for safe work practices is this method's most powerful tool. It helps workers establish new safe behavior patterns. It also recognizes and thereby reinforces the desired behavior.

CONDUCTING THE TRAINING

If employees are to learn and to improve, they must feel motivated. Here are some suggestions for enhancing the success of your safety and health training;

- Prepare employees for training by putting them at ease.
- Recruit employees who show signs of being good trainers of their co-workers. Prepare them to conduct this peer training.
- Explain the job or training topic. Determine how much your employees already know about it.
- Boost your employees' interest in training by helping them understand its benefits. For example, training can reduce injuries and near misses; training can enhance productivity and overall job performance, thereby improving the chance for advancement and other rewards.
- Pace the instruction to the trainees' learning speed. Present the material clearly and patiently.
- Present only as much information in one session as your employees can master.
- Have your employees perform each step of the operation and repeat your instructions and explanations. Have them repeat a task until you are satisfied they know how to do it.
- Encourage employees to help each other by dividing the group into teacher/learner pairs or practice pairs.
- Check frequently for correct performance during the initial practice period. Taper off on surveillance as the trainees become more proficient.
- Encourage your employees to build the new skill into the way they work best, but caution them not to change the newly learned procedure without first checking with you or their supervisor.

EVALUATION

Evaluation will help you determine whether the training you have provided has achieved its goal of improving your employees' safety and performance. When carefully developed and carried out, the evaluation will highlight your training program's strengths and identify areas of weakness that need change or improvement.

You should generate a plan for evaluating the training sessions as needs are being identified and training content developed. This important part of your training effort should not be put off until training is completed. Here are some of the ways you can evaluate your training program:

- Before training begins determine what areas need improvement by observing workers and soliciting their opinions. When training ends test for improvement by again observing workers. Ask them to explain their jobs' hazards, protective measures, and newly learned skills and knowledge.
- Keep track of employee attendance at training sessions. Training will not work for an employee who does not show up. Absenteeism can signal a problem with the worker, but it also can indicate a weakness in training content and presentation.
- At the end of training ask participants to rate the course and the trainer. This can be done in informal discussions, or confidentiality can be assured by a written questionnaire.
- Compare pre- and post-training injury and accident rates. The periods of time being compared must be long enough to allow significant differences to emerge if training has made a difference.

It often is easier to conduct an activity than to judge it. But do not ignore this evaluation phase. It will allow you to calculate your training program's bottom line profitability. Have the goals of training been achieved?

Do the results warrant offering the training again at some later date? How can the program be improved? Once you have made the effort to provide employee safety and health training, you certainly want to be able to answer these questions.

RECORD KEEPING

Even if you operate a very small business, it is to your advantage to keep training records. A simple form is all that you need, one that identifies the trainee, the topic or job, and the training date, with space for a brief evaluation of the employee's participation and success. These records will help you ensure that everyone who needs training receives it, that refresher courses are provided at regular intervals and that documentation is available, when needed, to show that training was appropriate. See Appendix 11-1 for one example of an easy to maintain training record.

SOURCES OF ASSISTANCE

You can obtain additional help in developing training programs and identifying training resources – often free of charge – from a variety of organizations.

These include:

- The Wisconsin Safety Consultation program for employers,
- OSHA full-service area offices,
- Local safety councils
- OSHA's Office of Training and Education, and
- OSHA-funded training grantees.

SUMMARY

The content of your training program and the methods of presentation should reflect your company's training needs and the particular characteristics of the workforce. Therefore, identification of needs is an important early step in training design. Involving employees in this process and in the subsequent teaching can be highly effective.

Whether you offer formal classroom training or on-the-job instruction, use the five principles of teaching and learning to maximize your program's profitability.

Communicate the purpose of training. Present information in a clear, understandable manner and a logical order. Give trainees the opportunity to practice the skills being taught. Let employees know if they are performing a new skill incorrectly, but perhaps even more important, give positive feedback when they are performing correctly. Recognize that we are all individuals, and that we learn in different ways. Provide a variety of different learning opportunities and pace your instruction and practice period so that all trainees – slow and fast learners – have the time they need to absorb the new skills and knowledge.

Your program should be geared toward employees recognizing hazards and learning ways to protect themselves and their coworkers. You especially may need to target new hires, contract workers, employees who need to wear personal protective equipment, workers in high risk areas and workers who risk exposure to bloodborne pathogens. Do not overlook the seasoned employee whose job changes as a result of new processes or materials. And the entire workforce needs periodic refresher training in responding to emergencies.

Plan from the initial design stage to evaluate your training program. An effective evaluation will identify your program's strengths and weaknesses, establish whether training goals are being met and provide a basis for future program changes.

Record keeping will help ensure that all who need training receive it. A simple form can document both your efforts to teach and your employees' success at learning hazard recognition and protection.

Finally, do not hesitate to go outside your company to seek help in designing and conducting your training. Numerous organizations are ready to assist you, often at no cost to you.

APPENDIX 11 - 1**EMPLOYEE TRAINING RECORD**

Name of Employee: _____

Employee Number: _____

Department: _____

Occupation(s) _____

TRAINING SUBJECT	DATE TRAINED	DATE RETAINED	COMMENTS

I have received and understood the safety and health training/repeat instruction list above and acknowledge that it has been given to me in my native tongue.

EMPLOYEE SIGNATURE	DATE	SUPERVISORS SIGNATURE	DATE